

INTEGRATED DISPLAYS USING NANOWIRE TRANSISTORS

ABSTRACT OF THE DISCLOSURE

The present invention is directed to a display using nanowire transistors. In particular, a liquid crystal display using nanowire pixel transistors, nanowire row transistors, nanowire column transistors and nanowire edge electronics is described. A nanowire pixel transistor is used to control the voltage applied across a pixel containing liquid crystals. A pair of nanowire row transistors is used to turn nanowire pixel transistors that are located along a row trace connected to the pair of nanowire row transistors on and off. Nanowire column transistors are used to apply a voltage across nanowire pixel transistors that are located along a column trace connected to a nanowire column transistor. Displays including organic light emitting diodes (OLED) displays, nanotube field effect displays, plasma displays, micromirror displays, microelectromechanical (MEMs) displays, electrochromic displays and electrophoretic displays using nanowire transistors are also provided.

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